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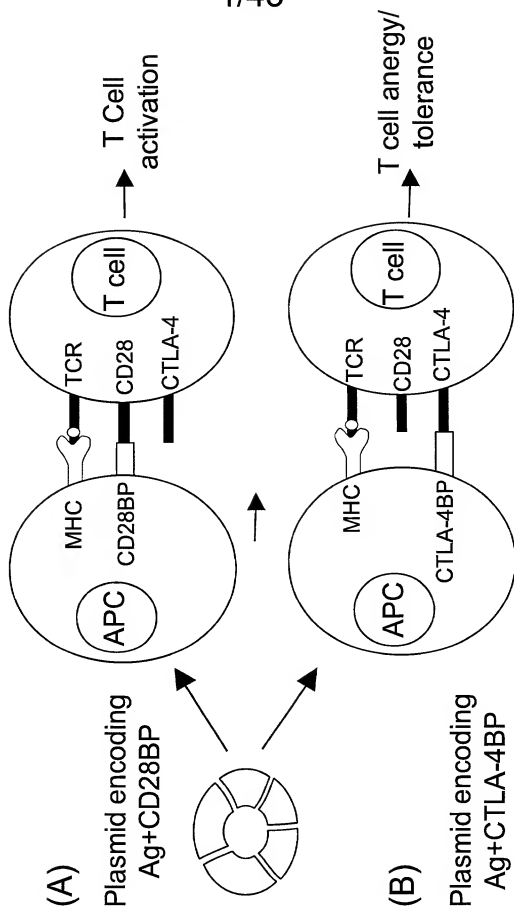


Fig. 1



30

[illegible]

Fig. 2A

	81	160
	←	→
	Extracellular domain (ECD)	
SEQ: 278_Human_B7-1	(79)	GENMTPEYKNTIITDNNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 048_R1_C1one_71	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 049_R1_C1one_84	(78)	GVQWPEYKNTITDNNLSEMLALRLSDSGTTCVQIQKPVKGA
SEQ: 050_R1_C1one_118	(78)	GVQWPEYKNTITDNNLSEMLALRLSDSGTTCVQIQKPVKGA
SEQ: 051_R1_C1one_126	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 052_R2_CD28B-1	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 053_R2_CD28B-2	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 054_R2_CD28B-3	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 055_R2_CD28B-4	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 056_R2_CD28B-5	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 057_R2_CD28B-6	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 059_R2_CD28B-7	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 059_R2_CD28B-8	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 060_R2_CD28B-9	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 061_R2_CD28B-10	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 062_R2_CD28B-11	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 063_R2_CD28B-12	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 064_R2_CD28B-13	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 065_R2_CD28B-14	(78)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 066_R2_CD28B-15	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 067_R2_CD28B-16	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 068_R2_CD28B-17	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 174_cd28A12-5	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 175_cd28A4-5star	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 176_cd28A4-9	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 177_cd28A6-9	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 178_cd28A6-1	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 179_cd28A8-4	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 180_cd28A8-6	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 181_cd28B2-8	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 182_cd28B4-3	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 183_cd28B6-3	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 184_cd28B6-6	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 185_cd28B8-5star	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA
SEQ: 186_cd28c11-5	(81)	GVQWPEYKNTITDNDNPRIVILALRLSDSGTTCVQIQKPVKGA

Fig. 2C

Extracellular domain (ECD)		160
81		
SEQ:187_c428C6-1	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:188_c428C7-3	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHLSVRLMIRADFVPSITDIGHAPNV	
SEQ:189_c428C8-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:190_c428C9-5star	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:191_c428C2-4	(78) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:192_c428D2-3	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHLSVRLMIRADFVPTINDLGNPSNI	
SEQ:193_c428D2-9	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHLSVRLMIRADFVPTINDLGNPSNI	
SEQ:194_c428D8-9	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:195_c428D11-1	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:196_c428D12-5	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:197_c428E10-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:198_c428F7-2	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:199_c428F8-4	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:200_c428F10-2	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:201_c428F12-5star	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:202_c428G2-8	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:203_c428G1-5	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:204_c428G1-9	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:205_c428H4-3	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:206_c428H11-3	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:207_c428H6-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:208_c428E2-4	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:209_c428H4-5a	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPSITDIGHAPNV	
SEQ:210_c428A2-5star	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:211_c428B4-5star	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:212_c428D5-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:213_c428D10-4	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:214_c428E2-5star	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:215_c428E8-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:216_c428E5-2	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:217_c428E9-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:218_c428F3-1	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:219_c428F3-5	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:220_c428F3-6	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:221_c428F11-8	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	
SEQ:283_CD28BP_Con	(81) GKQVWEYKAKRTITDMQNPRIIVIALRLSDSGTTCVCIQKPVLKGA YKLEHASVRLMIRADFVPTINDLGNPSNI	

Fig. 2D

Extracellular domain (ECD)		240
←	→	
161		
SEQ: 278_Human_B7-1	(158) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 048_R1_Clone_71	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 049_R1_Clone_84	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 050_R1_Clone_118	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 051_R1_Clone_126	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 052_R2_CD28BP-1	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 053_R2_CD28BP-2	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 054_R2_CD28BP-3	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 055_R2_CD28BP-4	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 056_R2_CD28BP-5	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 057_R2_CD28BP-6	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 058_R2_CD28BP-7	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 059_R2_CD28BP-8	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 060_R2_CD28BP-9	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 061_R2_CD28BP-10	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 062_R2_CD28BP-11	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 063_R2_CD28BP-12	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 064_R2_CD28BP-13	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 065_R2_CD28BP-14	(159) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 066_R2_CD28BP-15	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 067_R2_CD28BP-16	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 068_R2_CD28BP-17	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 174_cd28A12-5	(160) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 175_cd28A4-5star	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 176_cd28A6-9	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 177_cd28A6-1	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 179_cd28A8-4	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 180_cd28A8-6	(160) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 181_cd28A8-8	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 182_cd28A4-3	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 183_cd28B6-3	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 184_cd28B6-6	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 185_cd28B8-5star	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	
SEQ: 186_cd28C11-5	(161) RLICSTSGGFRPHLYMLENGEELANATVTSQDPETELVANSKSLDFNMTNHSFMCILIKYGHILVAVNQTFNMTTKQE	

Fig. 2E

	←	Extracellular domain (ECD)	→	
161				240
SEQ:187_c428C6-1	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:188_c428C7-3	(161)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:189_c428C8-6	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:190_c428C9-5star	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:191_c428C2-4	(158)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:192_c428D2-3	(159)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:193_c428D2-9	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:194_c428D8-9	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:195_c428D11-1	(160)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:196_c428D12-5	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:197_c428E10-6	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:198_c428F7-2	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:199_c428F8-4	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:200_c428F10-2	(161)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:201_c428F12-5star	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:202_c428G2-8	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:203_c428G1-5	(160)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:204_c428G1-9	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:205_c428H4-3	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:206_c428H11-3	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:207_c428H6-6	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:208_c428E2-4	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:209_c428A4-5a	(161)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:210_c428A2-5a	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:211_c428B4-5star	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:212_c428D5-6	(161)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:213_c428D10-4	(160)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:214_c428E2-5star	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:215_c428E5-2	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:216_c428E8-6	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:217_c428E9-6	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:218_c428F3-1	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:219_c428F3-5	(160)	KRIRCSASGDFPEFLAMDEGELNANNTVDDQDDELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:220_c428F3-6	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:221_c428F11-8	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		
SEQ:223_C028F1-3	(161)	RLRICSTSGGFPRLPHLYMLENGELNANNTVSODQPELWMISSELDPNVNNHSIVCLIKYBELSVSQTFFMSKPKQE		

Fig. 2F

SEQ: 278_Human_B7-1	ECO → TMD → CD →	307
SEQ: 048_R1_Clone_71	241	-----
SEQ: 049_R1_Clone_84	(238) HFDNLLPSMAITL-----ISVNGFVFCITVCFAPCRERRNE-RLRRESVRPV-----	-----
SEQ: 050_R1_Clone_118	(241) P-SANQHLTWIIIPVSAIGSIVIAVLICLTCTRNAAIRQRRENVEMQSCSQSP-----	-----
SEQ: 051_R1_Clone_126	(237) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 052_R1_Clone_126	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 053_R2_CD28BP-1	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 053_R2_CD28BP-2	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 054_R2_CD28BP-3	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 054_R2_CD28BP-4	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 056_R2_CD28BP-5	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 057_R2_CD28BP-6	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 058_R2_CD28BP-7	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 059_R2_CD28BP-8	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 060_R2_CD28BP-9	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 061_R2_CD28BP-10	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 062_R2_CD28BP-11	(240) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 063_R2_CD28BP-12	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 064_R2_CD28BP-13	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 065_R2_CD28BP-14	(238) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 066_R2_CD28BP-15	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 067_R2_CD28BP-16	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 068_R2_CD28BP-17	(240) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 174_CD28A12-5	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 175_CD28A4-5star	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 176_CD28A4-9	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 177_CD28A6-9	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 178_CD28A6-1	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 179_CD28A8-4	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 180_CD28A8-6	(240) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 181_CD28B2-8	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 182_CD28B2-8	(241) P-SANQHLTWIIIPVSAIGSIVIAVLICLTCTRNAAIRQRRENVEMQSCSQSP-----	-----
SEQ: 182_CD28B4-3	(241) P-SANQHLTWIIIPVSAIGSIVIAVLICLTCTRNAAIRQRRENVEMQSCSQSP-----	-----
SEQ: 183_CD28B6-6	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 184_CD28B6-6	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 185_CD28B8-5star	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----
SEQ: 186_CD28C11-5	(241) P-PIDQLPFWIIIP---VSGALVITAVLVLCACRCHVAMKRRTRNEETVGTRELSPYILGSAQSSG	-----

Fig. 2G

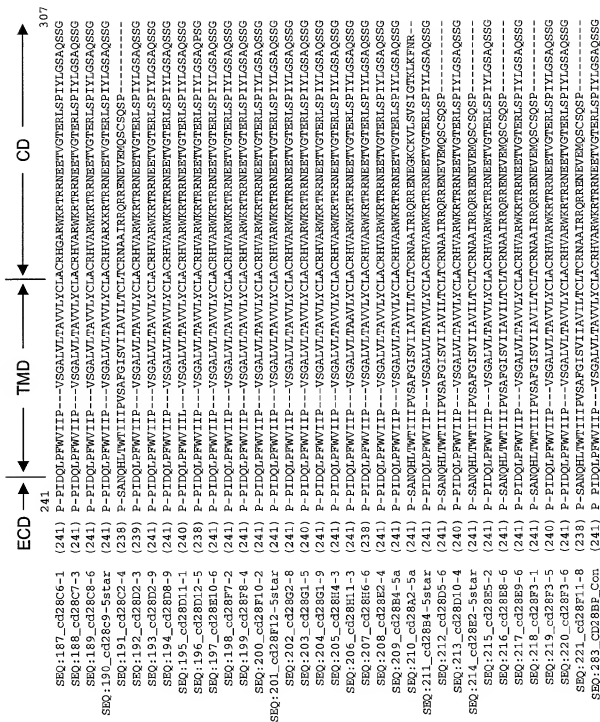


Fig. 2H

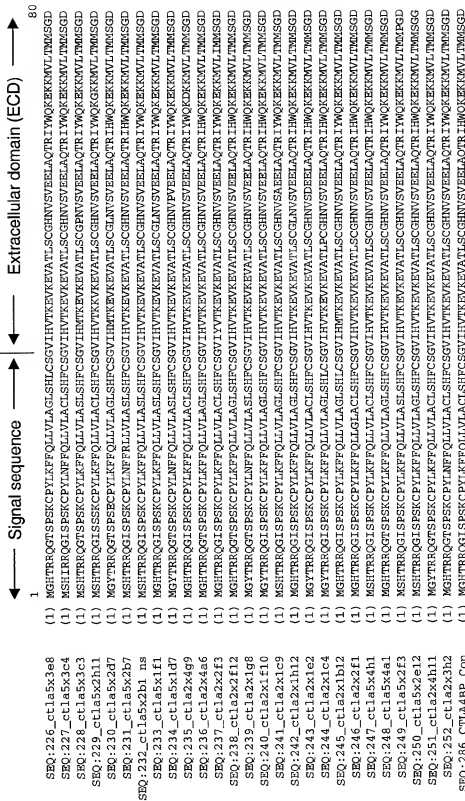


Fig. 3B

Fig. 3D

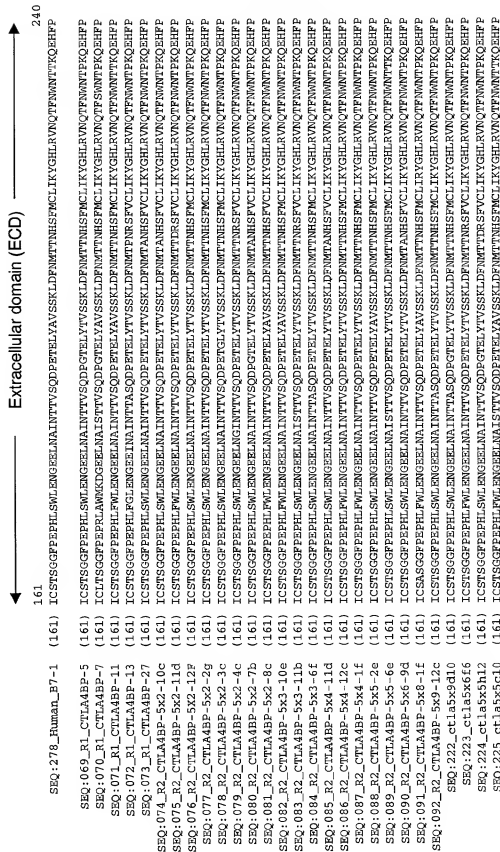
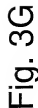


Fig. 3E

	←	Extracellular domain (ECD)	→	
161				240
SEQ:226_ct1a5x3e8	(161)	ICSTSGGFPPEPLFWLENGELNAINTVVSQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:227_ct1a5x3c4	(161)	ICSTSGGFPPEPLAMWEDGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:228_ct1a5x3c3	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:229_ct1a5x2h1	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:230_ct1a5x2c7	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:231_ct1a5x2b7	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:232_ct1a5x2b1_ns	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:233_ct1a5x1f1	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:234_ct1a5x1d7	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:235_ct1a2x4d9	(161)	ICSTSGGFPPEPLAMWEDGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:236_ct1a2x4e6	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:237_ct1a2x2f3	(160)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:238_ct1a2x2f12	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:239_ct1a2x1e8	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:240_ct1a2x1f10	(161)	ICSTSGGFPPEPLAMWEDGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:241_ct1a2x1c9	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:242_ct1a2x1h12	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:243_ct1a2x1e2	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:244_ct1a2x1e4	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:245_ct1a2x1b12	(161)	ICSTSGGFPPEPLAMWEDGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:246_ct1a2x2f1	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:247_ct1a5x4h1	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:248_ct1a5x4h1	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:249_ct1a5x2f3	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:250_ct1a5x2e12	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:251_ct1a2x4h1	(161)	ICSTSGGFPPEPLAMWEDGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:252_ct1a2x3h2	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		
SEQ:286_CTLA4BP_Con	(161)	ICSTSGGFPPEPLFWLENGELNAINTTASQDPETELVTVSSKLDPNMTTNSFVCLIKYGLRVNQTTNNTPKQEHFP		

Fig. 3F



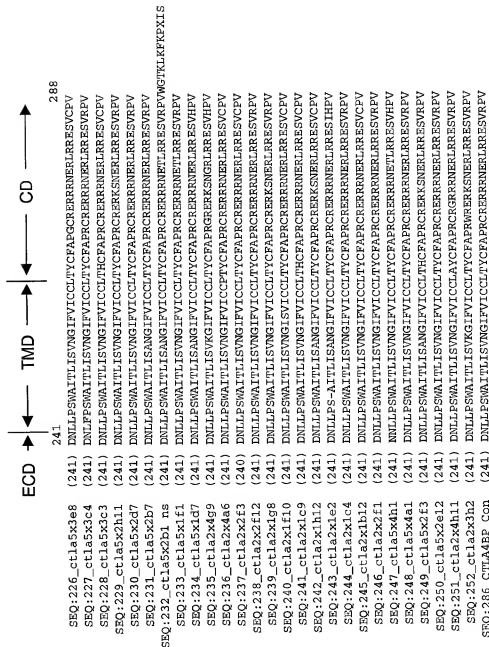


Fig. 3H

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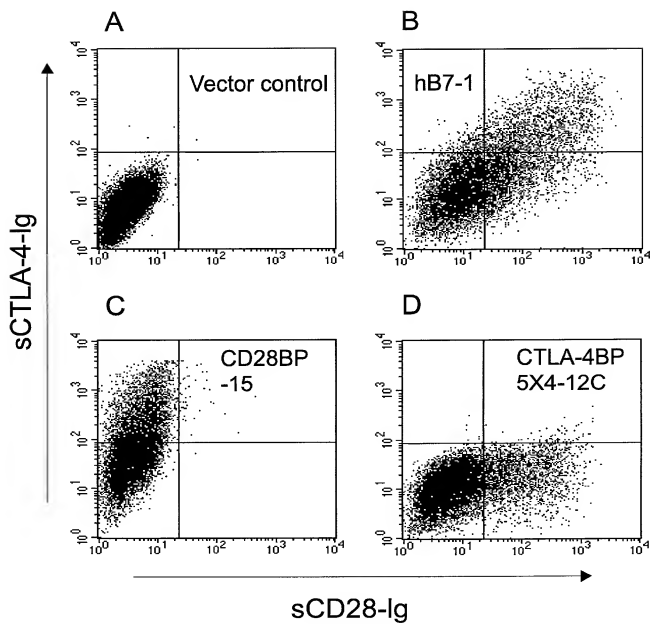
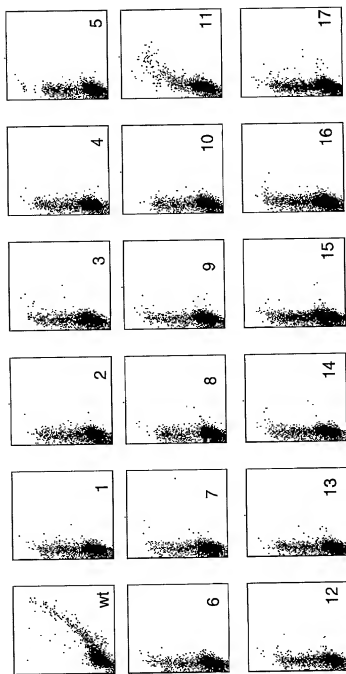


Fig. 4

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CD28
Binding

CTLA4 Binding

Fig. 5

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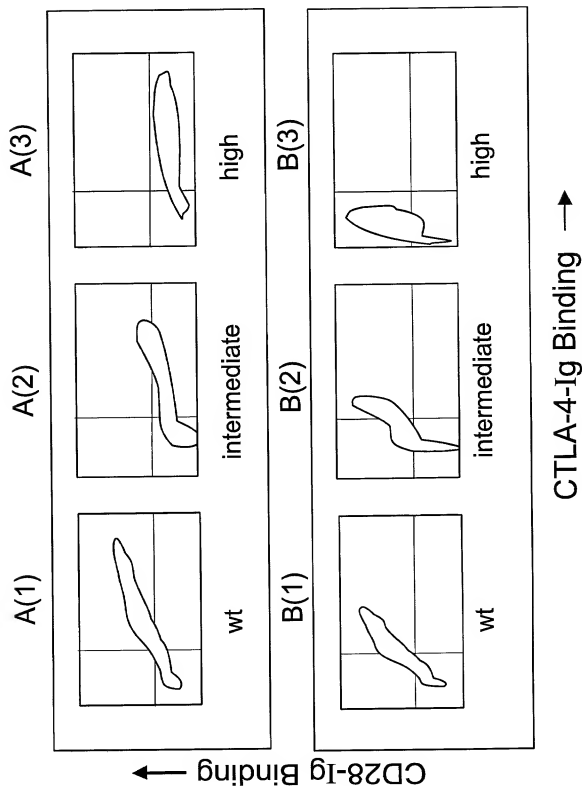


Fig. 6

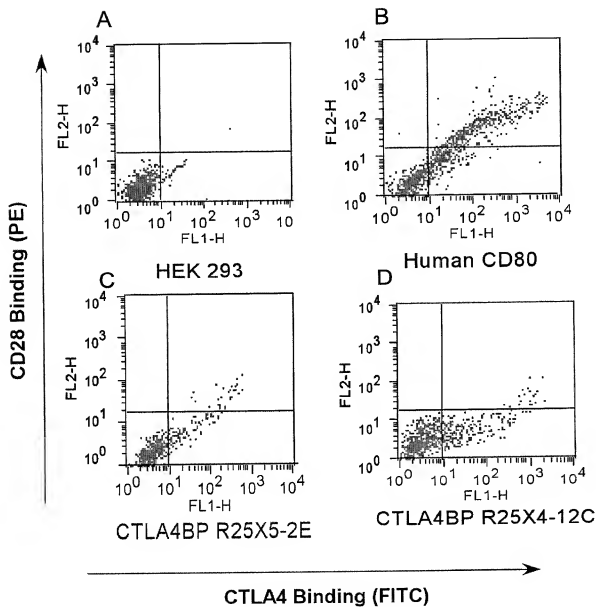


Fig. 7A-D

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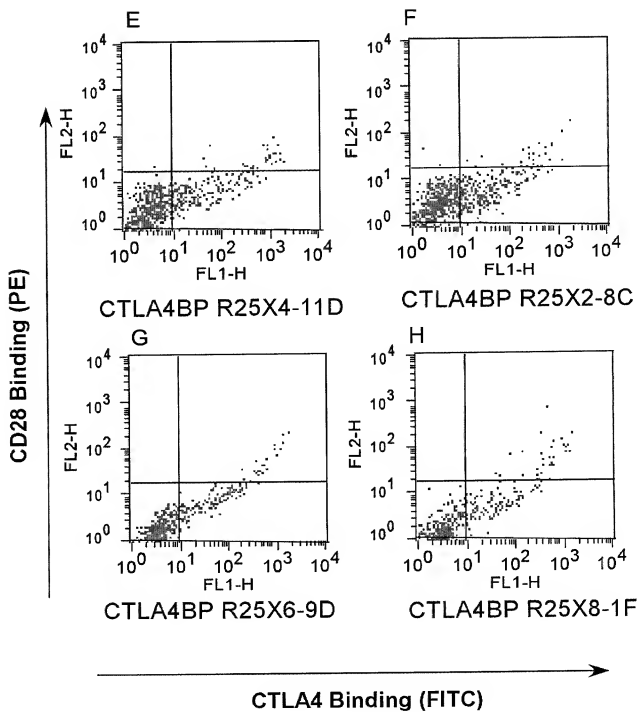


Fig. 7E-H

Fig. 8A

CTLA-4BP
 MGHTRRQGTSPSKCPYL^{*}KFFQLLVLAGLSHFCSGVHVTKEVATLSCGHNVSVLELAQT
 RIHWQEKEMVLTMMSGDMNIWPEYKNRTIFDITNNLSIVLALRPSDEGTYESVWLKYEKDAF
 KREHLAEVMLSVKADFTPTSPISDFEIPPSNIRRIICSTSGGFPEPHLFWLENGEELNAINTTVSQ
 DPETELYTVSSKLDNFNMTTNSHFMCLIKYGHILRVNQTFNWNTPKQEHFPDNLPSWAITLSA
 NGIFVICCLTYRFAPRCRERKSNETLRRESVRPV
 * * * * *
 * * * * *

Fig. 8B

CD28BP
 MGHTMKWGLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYNTSTEELT
 SLRIYWQKDSKMVLAILPGKVQVWPEYKNRTITDMNDNPRIVILALRPSDSGTYTCVIQKPVLK
 GAYKLEHLASVRLMIRADFPVPTINDLGNPSNIRRLICSTSGGFPRPHLYWLENGEELNATNT
 TVSQDPGTELY^{*}MISSELD^{*}FNVTNNHSIVCLIKYGEISV^{*}QSIFPWSKPKQEPPI^{*}DLPF^{*}WII^{*}PVS
 GAVLTAVLYCLACRHVARWKTRRNEETVGT^{*}ERLSPIYL^{*}GSAQSSG
 * * * * *
 * * * * *

 human
 orangutan
 rhesus
 baboon
 rhesus/baboon
 cow
 rabbit

- ◇ Vector control
 ○ hB7-1
 □ hB7-1-Flag
 ● CD28BP-15
 ○ CD28BP-Flag
 ▲ CTLA-4BP 5X4-12c

Fig. 9A

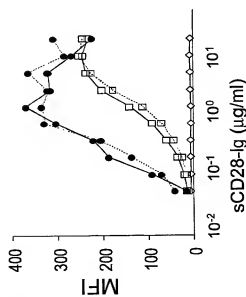


Fig. 9C

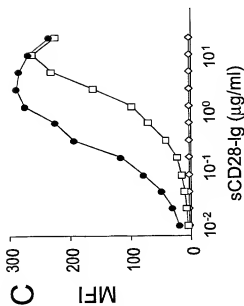


Fig. 9B

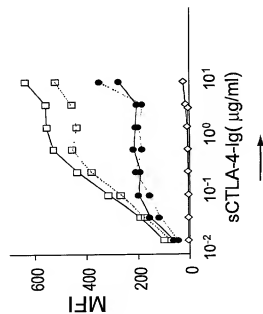
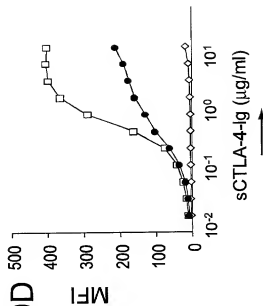


Fig. 9D



- ◇ Vector control
- hB7-1
- CD28BP-Flag
- ▨ hB7-1-Flag
- ▲ CTLA-4BP 5X4-12c

Fig. 9E

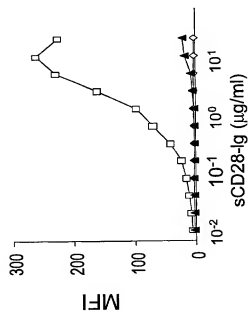


Fig. 9G

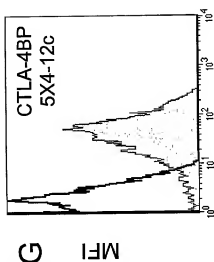


Fig. 9F

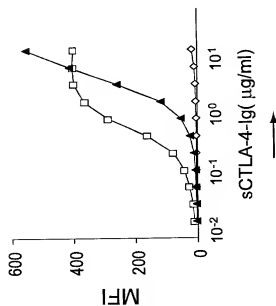
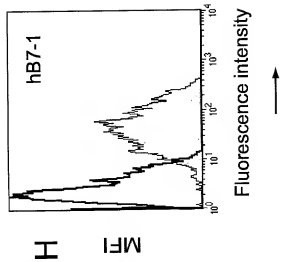


Fig. 9H



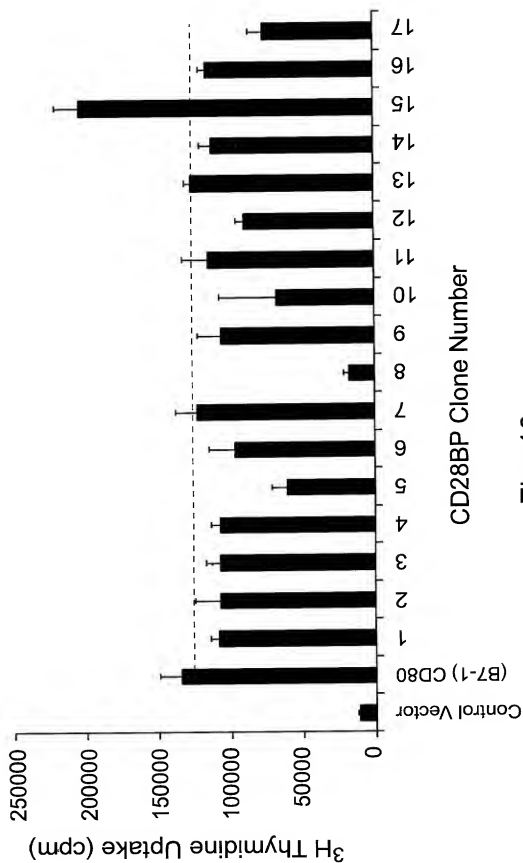


Fig. 10

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Fig. 11A

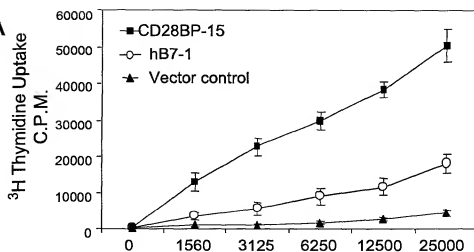


Fig. 11B

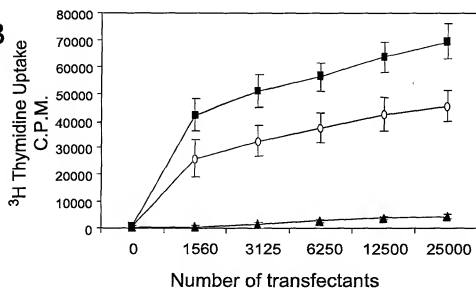
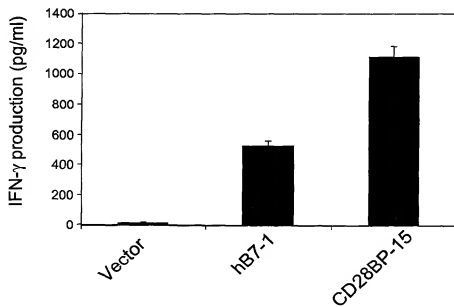


Fig. 11C



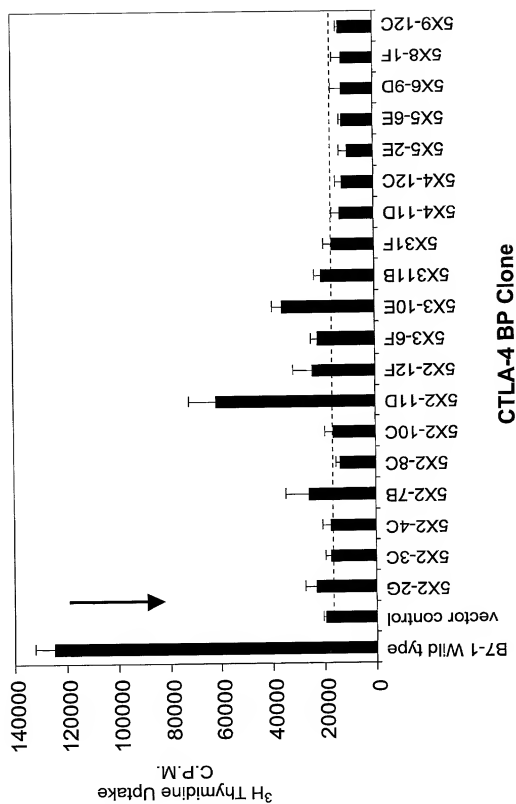


Fig. 12

Fig. 13A

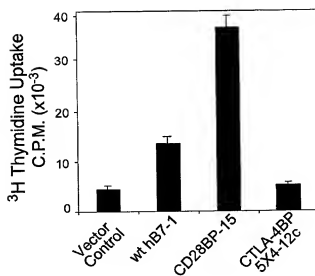


Fig. 13B

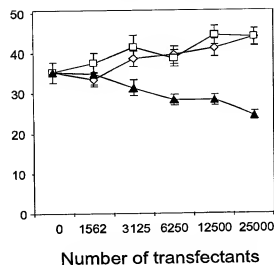


Fig. 13C

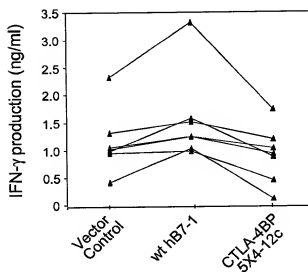


Fig. 13D

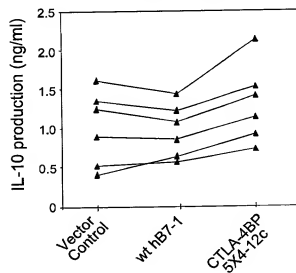


Fig. 14A

Human B7.1 sECD

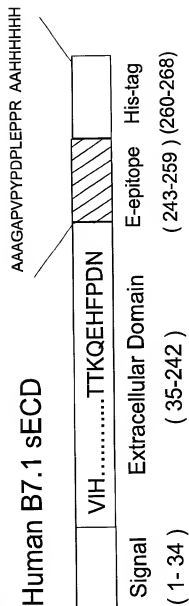
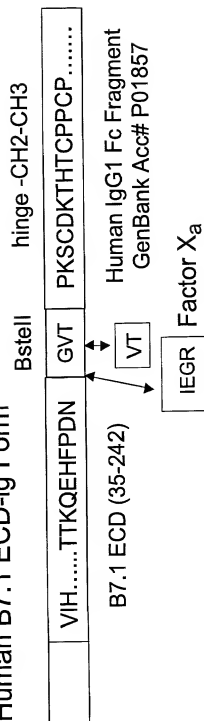


Fig. 14B

Human B7.1 ECD-Ig Form



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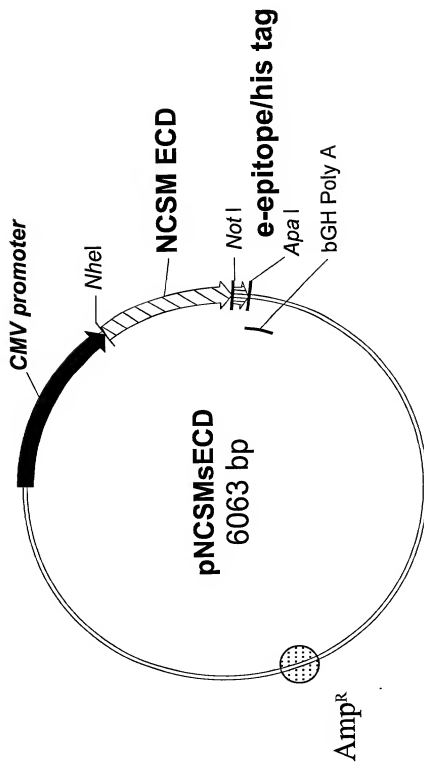


Fig. 15

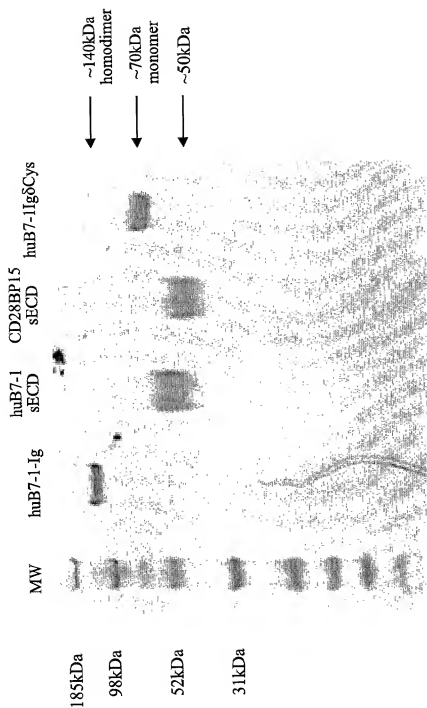


Fig. 16

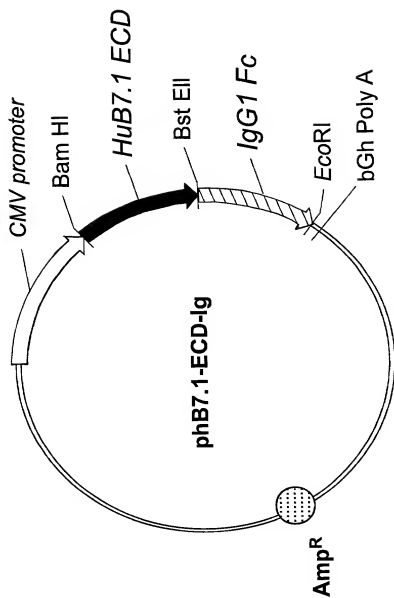


Fig. 17

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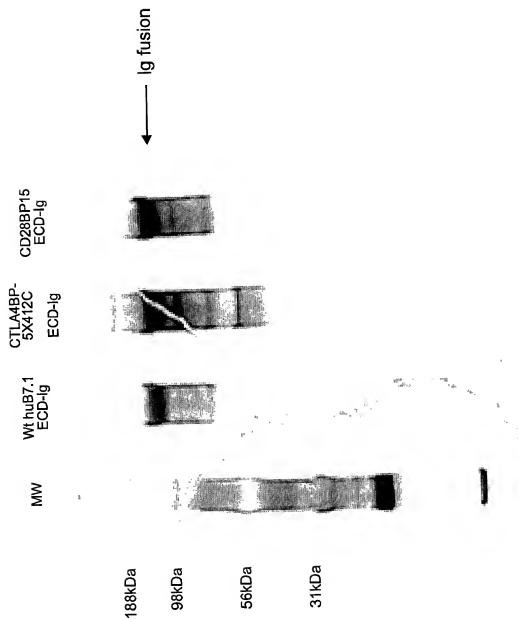


Fig. 18

Expression of CTLA-4BP-Ig and CD28BP-Ig Proteins



Fig. 19

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Fig. 20A

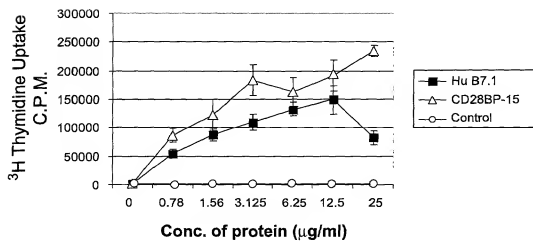
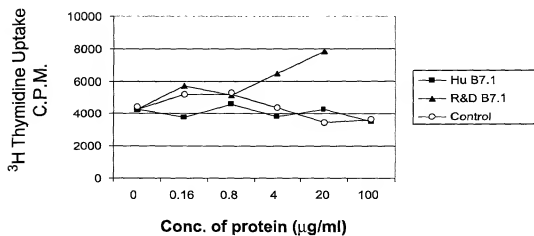


Fig. 20B



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Fig. 20C

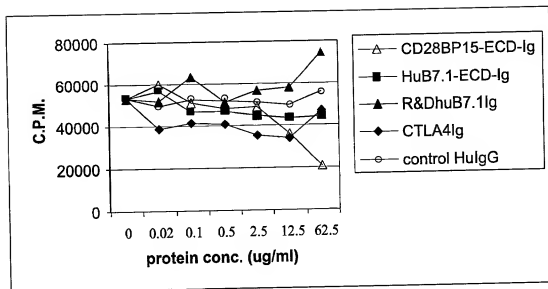
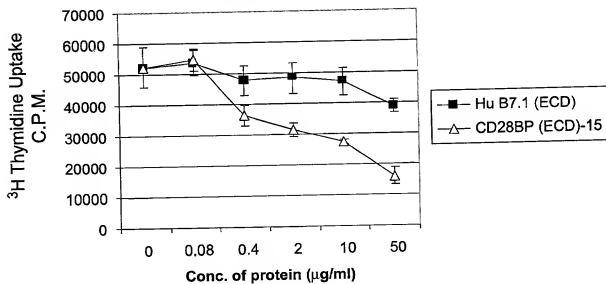


Fig. 20D



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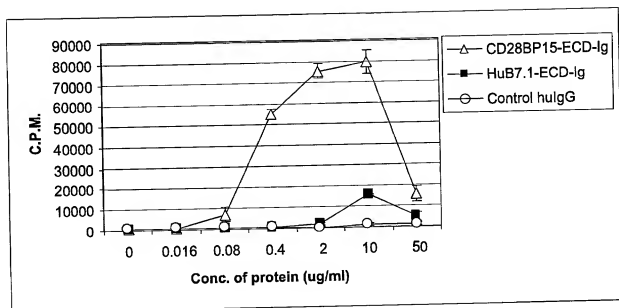


Fig. 20E

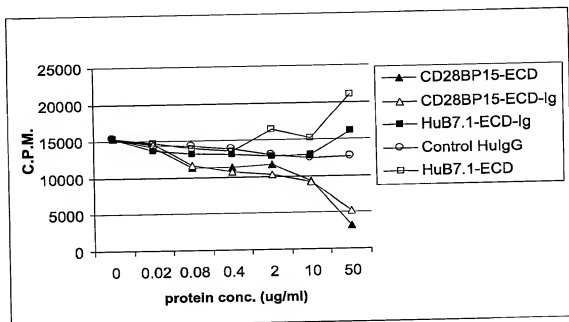


Fig. 20F

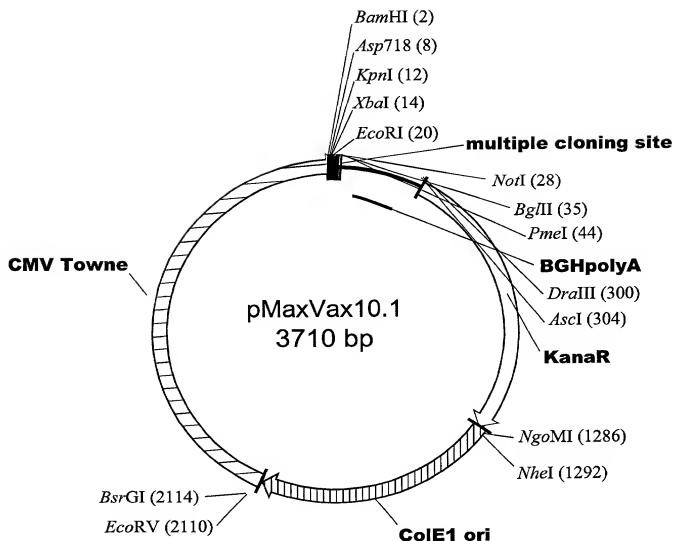


Fig. 21

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Fig. 22A

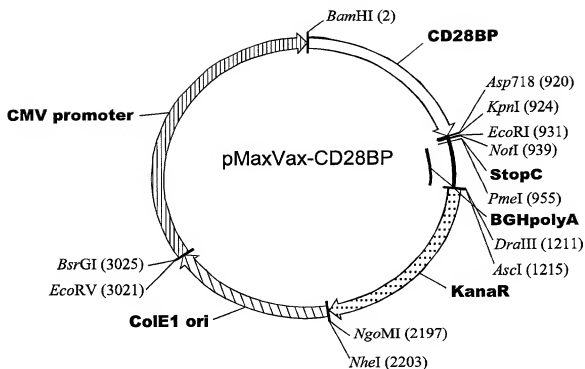
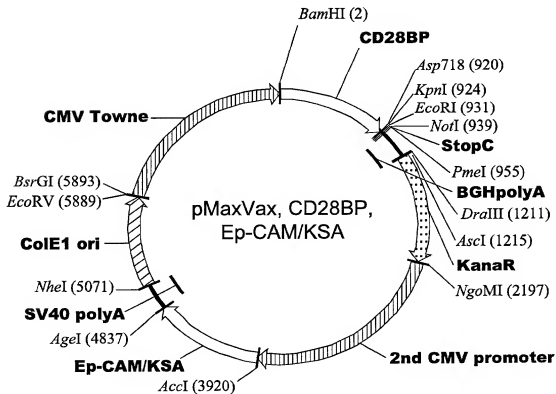


Fig. 22B



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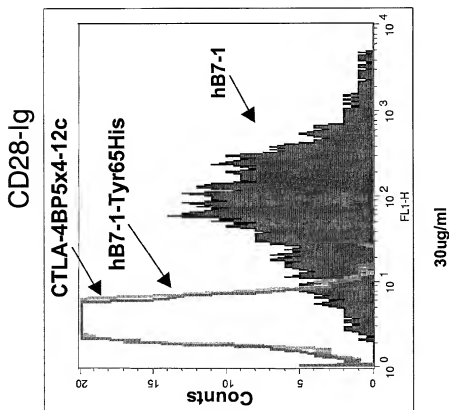


Fig. 23B

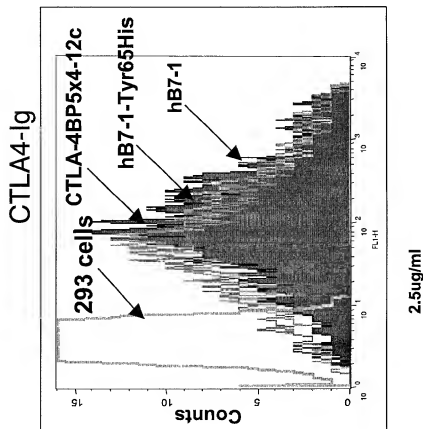


Fig. 23A

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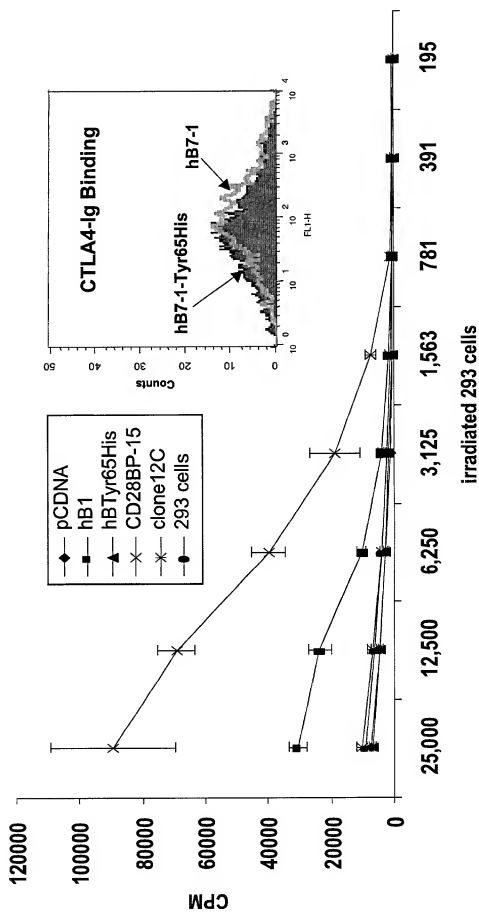
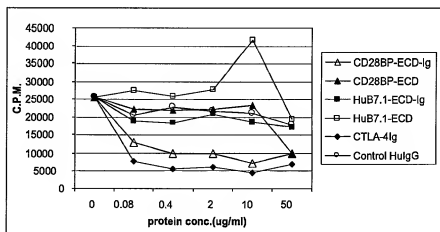


Fig. 24

Fig. 25B



Protein conc. (µg/ml)	CD28BP15-ECD-Ig (△)	CD28BP-ECD (▲)	HuB7.1-ECD-Ig (■)	HuB7.1-ECD (□)	CTLA-4Ig (●)	Control HuIgG (○)
0	13000	13000	13000	13000	13000	13000
0.08	8000	15000	11000	16000	2500	17000
0.4	4500	18000	16000	16000	3000	19000
2	4000	12000	16000	14000	2000	14000
10	5500	2500	9000	22000	14000	12000
50	5000	3000	16000	21000	5000	12000